Claims:

1. The virus LAV_{MAL} comprising RNA corresponding to the cDNA of figs. 7A-7I.

2. The cDNA of figs. 7A-7I.

3. A DNA recombinant comprising the cDNA of claim 2.

4. A probe containing a nucleic acid sequence hybridizable with RNA of said LAV_{MAL} virus of claim 1.

5. A method for identifying the presence in a host tissue of LAV virus which comprises hybridizing RNA obtained from said tissue with said probe of claim 4.

6. The method of claim 5, wherein said probe can hybridize with RNA from said LAV_{MAL} virus to identify said LAV_{MAL} virus.

7. A peptide or fragment thereof whose amino acid sequence is encoded by an open reading frame of a cDNA sequence of the LAV_{MAL} virus of claim 1.

8. The peptide of claim 7 encoded by a cDNA sequence from amino-acyl residue 37 to amino-acyl residue 130, or from amino-acyl residue 211 to amino-acyl residue 289, or from amino-acyl residue 488 to amino-acyl residue 530 of figs. 3A-3F and 7A-7I.

9. The peptide of claim 7 encoded by a cDNA sequence from amino-acyl residue 490 to amino-acyl residue 620 or from amino-acyl residue 680 to amino-acyl residue 700 of figs. 3A-3F and 7A-7I.

10. The peptide of claim 7 which comprises a protein or glycoprotein whose amino acid sequence is encoded by all or part of one of the following cDNA sequences of figs. 3A-3F and 7A-7I:

OMP or gp110 proteins, including precursors: 1 to 530;

OMP or gp110 without precursor: 34-530; and

TMP or gp41 protein: 531-877.

11. The peptide of claim 10 encoded by all

or part of one of the following cDNA sequences of figs. 3A-3F and 7A-7I: 37-130, 211-289, 488-530, 490-620 or 680-700.

12. A method for the <u>in vitro</u> detection of the presence of an antibody directed against a LAV virus in a human body fluid, which comprises: contacting said body fluid with an antigen obtained from said virus LAV_{MAL} of claim 1, said antigen consisting of a peptide or a fragment thereof whose amino acid sequence is encoded by an open reading frame of a cDNA sequence of figs. 7A-7I; and then detecting the immunological reaction between said antigen and said antibody.

13. The method of claim 12 wherein said antigen detects said LAV_{MAL} virus of claim 1.

14. The method of claim 12 which comprises the steps of:

a) depositing a predetermined amount of said antigen into a cup of a titration microplate;

b) introducing increasing dilutions of said body fluid into said cup;

c) incubating said microplate;

d) washing the microplate with a buffer;

e) adding into said cup a labelled antibody directed against blood immunoglobulins; and then

f) determining whether an antigen-antibody-complex has formed in said cup which is indicative of the presence of a LAV antibody in said body fluid.

15. A diagnostic kit for the <u>in vitro</u> detection of antibodies against a LAV virus, which kit comprises: an antigen consisting of a peptide of claim 7.

16. The kit of claim 15 wherein the antigen consists of a peptide of said LAV_{MAL} virus of claim 1, encoded by the open reading frame of a cDNA sequence of said LAV_{MAL} virus.

17. An immunogenic composition comprising: an antigen of the LAV_{MAL} virus of claim 1 or an immunogenic peptide or fragment thereof encoded by RNA of said virus; and a physiologically acceptable carrier.

18. The immunogenic composition of claim 17 wherein said peptide is the gp110 envelope glycoprotein or a fragment thereof.

19. The immunogenic composition of claim 17 wherein the peptide comprises a protein or glycoprotein hwose amino acid sequence is encoded by all or part of one of the following cDNA sequences of figs 3a-3F and 7A-7I:

OMP or gp110 proteins, including precursors: 1 to 530;

OMP or gp110 without precursor: 34-530; and

TMP or gp41: 531-877.

20. The composition of claim 19 wherein the protein or glycoprotein is encoded by all or part of one of the following cDNA sequences of Figs. 3A-3F and 7A-7I: 37-130, 211-289, 488-530, 490-620 or 680-700.

21. An antibody formed against a peptide of claim 7.

22. A cell transformed with a DNA recombinant of claim 3.

Add A2

Add B1